ABSTRACT

A system for transmitting color images includes an image capture device for receiving at least one color image; a gray scale image generator for removing color data from the image to produce gray scale version of the image; a first region detection device for identifying a plurality of arbitrarily-shaped discrete regions of the image and generating a region map, wherein each of the plurality of discrete regions of the region map encompass a portion of the gray scale image having a particular intensity value (luminance) or visual texture (visually observable intensity pattern variations); a color region list compiler for compiling a color region list associating each of the plurality of regions with a color value; and a transmission device for transmitting the gray scale version of the image and the color region list. The system further includes a reception device for receiving the gray scale version of the image and the color region list; a second region detection device for identifying the plurality of arbitrarily-shaped discrete regions of the image identified by the first region detection device and generating the region map; and a color assignment device which receives the color region list and assigns a color value to each of the plurality of regions in the region map, based on information in the color region list to generate a colored region image.